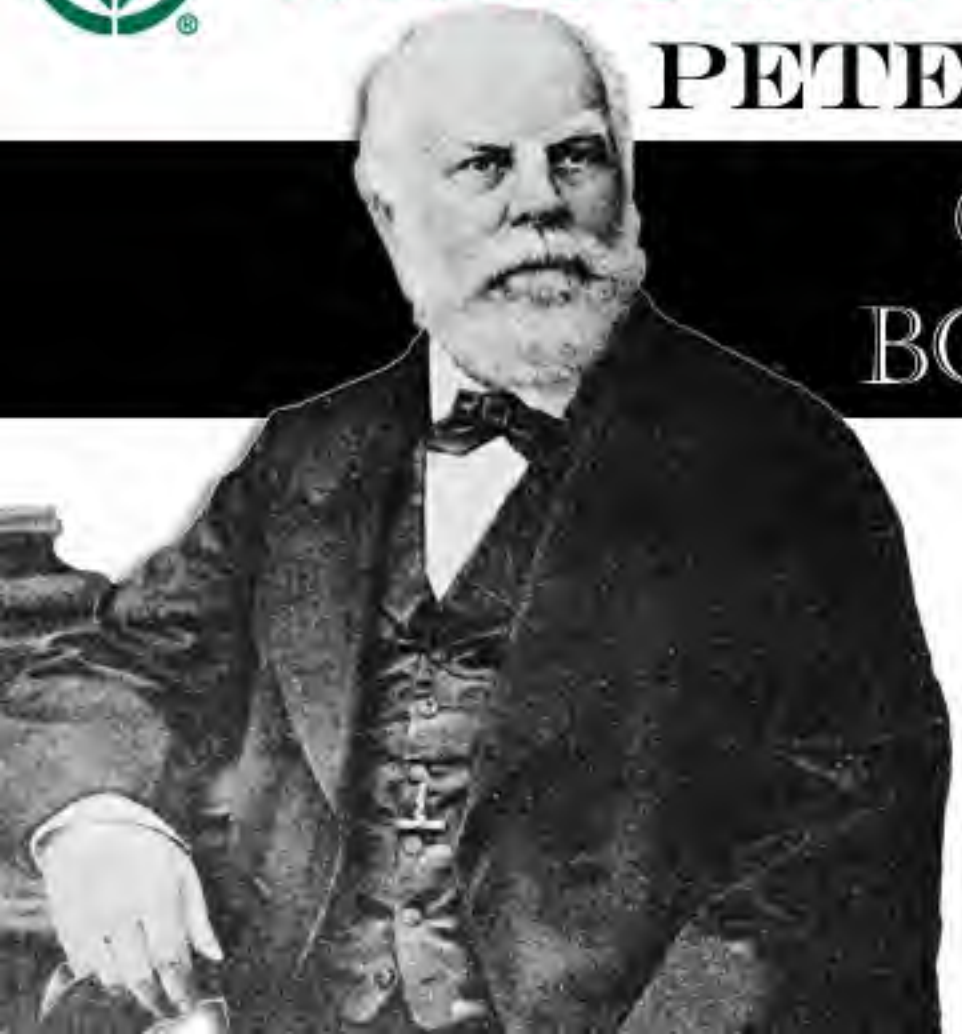
Missouri Botanical Garden
Peter H. Raven Library

George Engelmann Botanical Notebooks



Pagination Note:
Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

3-8-87

Topaz in Utah. By Henry Engelmann.

During my explorations in Utah as Geologist of the Expedition under Capt. J. H. Simpson, Top. Eng'rs. U. S. A., in 1858 and 1859, I observed some remarkably beautiful crystals of Topaz among some detritus of trachytic porphyry. They were perfectly colorless, transparent, sharply developed, and of great lustre. They were all short columnar. The largest of them measured scarcely one third of an inch in the direction of the basal cleavage, which was highly perfect. I observed ten modifications: all crystals exhibited (according to Prof. Rose's designation)

∞c : b : a ,	∞c : b : 2 a ,	c : ∞b : : ∞a 1 ,
4 c : b : ∞a ,	2 c : b : a ;	
most of them also	2 c : b : ∞a ,	c : b : a ;
a few only	2 c : ∞b : a , and	4 (?) c : b : a .

As in none of the crystals were both ends developed, I could not ascertain whether they were hemihedral, as is most common with topaz. The hardness of the mineral is =8. It is infusible before the blowpipe; and when strongly heated is coated with small blisters, but does not show any change of color. It exhibits the reactions of fluorine, alumina, and silex. No tests were made for other elements, nor were the

0 1 2 3 4 5 6 7 8 9 10 cm copyright reserved MISSOURI BOTANICAL GARDEN

8959

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

ELÆACRINUS KIRKWOODENSIS, n. sp.

Body very small, subglobose, a little longer than wide, flattened above and below. Basal pieces very gently concave, with their edges on a level with the plane of the under side. Radial pieces (fork pieces) reaching to the base and occupying more than four fifths the entire length of the body, narrow below and widest in the middle, sides gently arched. Interradial pieces subdeltoid, very prominent towards the apex, much longer than wide, obtusely angulated below, acutely angulated above, and notched on either side a short distance below the summit. Pseudo-ambulacral areas extending from base to summit, narrow, deeply impressed; sides nearly parallel; pore pieces amounting to about fifty in each field. A longitudinal fissure or slit extends from the central summit opening downwards, separating the pore pieces of one side from their fellows of the opposite for the distance of about one fifth the length of the field, thence their inner edges are united in the median line to the base. Pseudo-ambulacral spaces lanceolate, sloping gently from their edges to the sutures. Ovarial apertures eight, very minute, situated at the notches of the

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

I. procerus, E. Meyer, Linnaea 3. 367 1828

aphyllus? scapo laevi nudi
anthela supradecompositâ subcymosa
sepalis ovatis, exterioribus acutis, interioribus paulo
brevioribus obtusis mucronulatis;
capsulam trigonâ-obovatam vix superantibus
staminibus 3 Sem. oblong subapiculat.

Chile, Chamisso
over 2 feet high, as thick as a goose quill, smooth,
densely filled with narrow, but easily compressed
Spathe 3–5 tubes long –
Stamens half as long as Capsule; anthers
less than half as long as filament
Capsule obovate. 3 angled, very obtuse
but not retuse, rarely if ever, mucronulate
Some varieties & different proximus perianthii forma
ab utroque differt

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

EDWIN R. SWANN & CO.

Apothecaries & Pharmaceutists,

S.W. CORNER OF TWELFTH & OLIVE STs

ST. LOUIS.

MISSOURI BOTANICAL GARDEN
LIBRARY-ENGELMANN PAPERS

0968

MISSOURI BOTANICAL GARDEN
copyright reserved
cm 0 1 2 3 4 5 6 7 8 9 10

Californ specimen

Can this be the Chilian D. proverus ?

but scape not stiff, not as thick as a goose quill

stamens more than half as long as capsule

and anthers longer than filament, not half as long

sepals reversed, also capsule

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

& PHARMACEUTIST,
OLIVE STS., ST. LOUIS.

1968

copyright reserved
MISSOURI BOTANICAL GARDEN

62-3

interrupted descent and ascent took place from January to December, we find in 1862 some interruptions in the steps of that ladder. The electricity in February, 1862, is about four degrees higher than that of January, April somewhat higher than March, and July is the lowest instead of September in 1861. These trifling irregularities may be accounted for by differences in temperature and relative humidity, and by a greater number of thunderstorms in 1862. January of 1862, for instance, was so unusually rainy, that its relative humidity too was unusually high, diminishing thus electricity. But the general features of distribution of electricity throughout the year are apparent in both years, and we may in that respect divide the twelve months of each year into two or three groups. Computing the months which give the highest electricity and those which give the lowest in each year, we find that in both years the months of January, February, March, April, November and December exhibit the highest, and the months of May, June, July, August, September and October the lowest electricity. The first group gives

The aggregate monthly mean of	71.5	degrees	of electricity	in 1861
and	74.6	"	"	" 1862
While the second group gives	29.0	"	"	" 1861
and	25.7	"	"	" 1862

The second group prevailed therefore in 1861, and the 1st

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

8962

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

VI. The appearance of negative electricity was connected in

1861. No. times.	1862. No. times.	
30	32	with thunderstorms.
23	28	with rains without thunder and lightning.
20	4	with dry storms (without rain and without thunder and lightning).
4	3	with snow.
1	0	with fog.
78	67	

VII. *Relation of Rain and Snow to Electricity.*

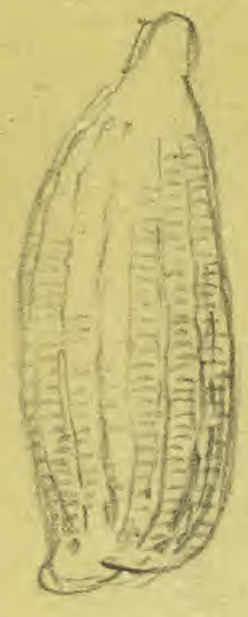
Rain without thunderstorm was accompanied

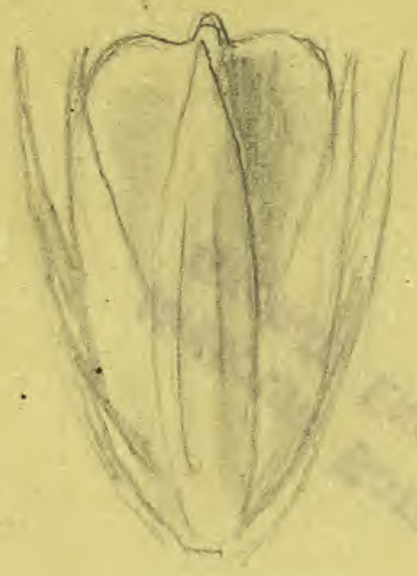
	By Positive Electricity.		By Negative Electricity.		By no Electricity.	
	In 1861.	In 1862.	In 1861.	In 1862.	In 1861.	In 1862.
						2

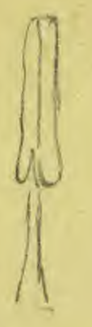
Inner conglomeration
Zweibrücken, Förmahr 1827

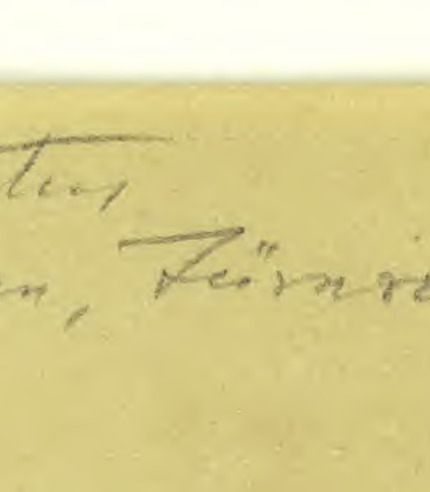
Aug 17. 1865

x 60









0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

ALEX. LEITCH,

APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

8963

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 cm 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

July	2	4	.....	.....	.....	3 .....
August.....	3	.....	1	.....	1	2 .....
September.....	4	.....	.....	1	4	8 .....
October	3	1	1	1	7	1 .....
November	2	3	.....	7	.....	7 .....
December	2	3	.....	.....	.....	6 .....
	50 + el.	36 + el.	23 — el.	28 — el.	15 no el.	34 no el.

Snowing was accompanied

	By Positive Electricity.		By Negative Electricity.		By no Electricity.	
	In 1861.	In 1862.	In 1861.	In 1862.	In 1861.	In 1862.
January.....	3	9	.....	2	.....	.....
February	12	8	.....	1	.....	.....
March	3	12	.....	.....	.....	.....
October.....	.....	1	.....	.....	.....	.....
November	.....	4	.....	.....	.....	.....
December	5	2	2	.....	.....	1 .....
	23 + el.	36 + el.	2 — el.	3 — el.	.....	1 no el.

REMARKS.

The monthly mean of atmospheric electricity in 1862 was not quite so regular as that in 1861. While in 1861 an un-

copyright reserved
MISSOURI BOTANICAL GARDEN

8964

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Junior Assocs

	H. Philad.	Gray	Engelm
S. Carolina		Curtis	Curtis
N Orleans		Berlandier 1942 & 552	1942. 552
Houston Tex		Lindheimer	Lindheim
Florida		Chapman	
Ipswich mass	Oakes	Oakes	
S. Carolina		Ravenel	
Wisconsin	Hale		Hale
Philadelphia	Leidy Smith		Smith, Leidy
Pennsylvania			Wolle
Maine			Blake
Mississippi			Blake
Kentucky	Short		Hi. Gard
Georgia	Baldwin		

Non compilants

Ipswich Mass	Oakes	Oakes

Nr pinos mobilibus

California		Bolander

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

8465

ALEX. LEITCH

APOTHECARY & PHARMACEUTIST,

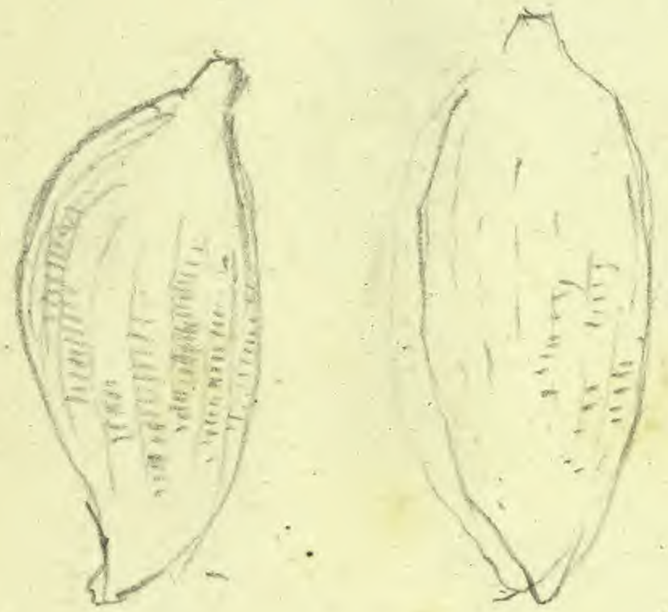
COR. 4TH & OLIVE STS., ST. LOUIS.

MISSOURI BOTANICAL GARDEN
ENGELMANN
GEORGE
LIBRARY

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Juncus effusus
var Brunneus

Lobos Creek, damp sandy soil in large
cespitose tufts Dr Kellogg, July 28 1866



6-7 in

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

ALEX. LEITCH,

APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

99668

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

MISSOURI BOTANICAL GARDEN
copyright reserved

Juncus effusus Lin Aug 17 1865

Bridel 1824

x 60

truncipressed

external sepals
a little longer
sharper pointed
than inner ones
and a little longer
than very obtuse or
retuse pod

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

ALEX. LEITCH,

APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St Louis, Mo.

8968

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

Forrest Officers · Aug 17 1965

W Dorris, Hale

just after flowering

flowers larger than in European spec.

interior sepals a little shorter

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

8968

ALEX. LETTELL,

APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

Aug 17 1865

Senecio obovatus L

Nuttall type E. Hilgard

(Both Cabin exactly the same)
Houston, Texas ditto

anth sepals equally
long and ovate
to expand

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

8969

ALEX. LEITCH,
APOTHECARY & PHARMACEUTIST,
Marble Building, Cor. Fourth & Olive Sts. St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

L. officinalis
var. *subinermis* Fleroy
Sweden, *C. Fries*

Aug 17 1865

×60

sepals equal
as long or a little
shorter the capsule

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

ALEX. LEITCH,

APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

8970

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

Swamps

Aug. 29 1865

151 Swamps, San Ramón

Bolivia 1864

x60

x10

Capsule retusa
versus apicem
trialato-trigona
sepalis acutis aequilongis
capsula retusa aequilata

x150

x10
seed of same
testa compressa
sinuato-trigona

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

ALEX. LEITCH

APOTHECARY AND CHEMIST.

Marble Building, cor. 4th and Olive Sts.,

ST. LOUIS, MO.

8971

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 cm 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

Iuncus Balticus Aug 30 1865

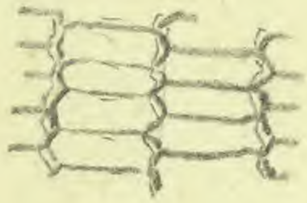
Wells, Maine, J. Blake leg. — ex Hb. E Hall

×10

×60

style sub nullo

Capsula ovata rotusa staminibus fere ea
sepala aequiparata. Pere aequante
sepala interiora paulo brevior

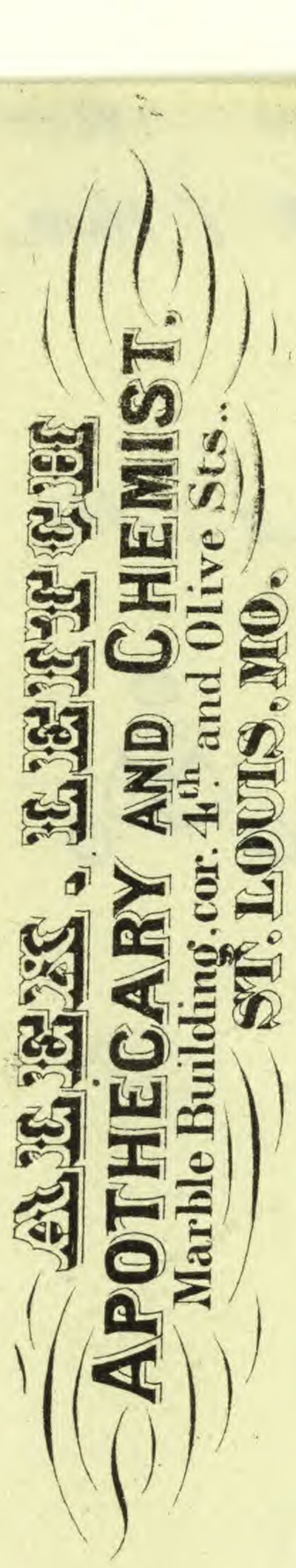


×150

seed of stem ×10

MISSOURI BOTANICAL GARDEN
copyright reserved

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



CL68

Febr 3 1866

"Read, South — Shetter"

Ho Amos Field.

evidently very young J. effusus

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

EL68
8973

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

"Panicum diffusum Hoffm" March 15 1866

Mecklenburg, Fris Bach

Why not P. effusum ?

very young

upper leaf sheath
narrower & little
longer than outer one

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

8974

ALEX. LEITCH,
APOTHECARY AND CHEMIST,
Marble Building, Cor. Fourth and Olive Streets,
ST. LOUIS, MO.

MISSOURI BOTANICAL GARDEN
GE.B96 ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10 copyright reserved MISSOURI BOTANICAL GARDEN

" Daucus communis "

March 15 1866

Tasmania, Gunn

= Hb Gray

sepala lanceolata
bracteola obtusissima
mucronata

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

ALEX. LEITCH,

APOTHECARY AND CHEMIST,

Marble Building, Cor. Fourth and Olive Streets,

ST. LOUIS, MO.

8475

MISSOURI BOTANICAL GARDEN
ARCHIVE
BROWN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

894 "Juncus effusus" March 23 1866

Nagasaki Japan, Oldham # 46 grey

8-9 ribs visible

copyright reserved
MISSOURI BOTANICAL GARDEN

ALEX. LEITCH,

APOTHECARY AND CHEMIST,

Marble Building, Cor. Fourth and Olive Streets,

ST. LOUIS, MO.

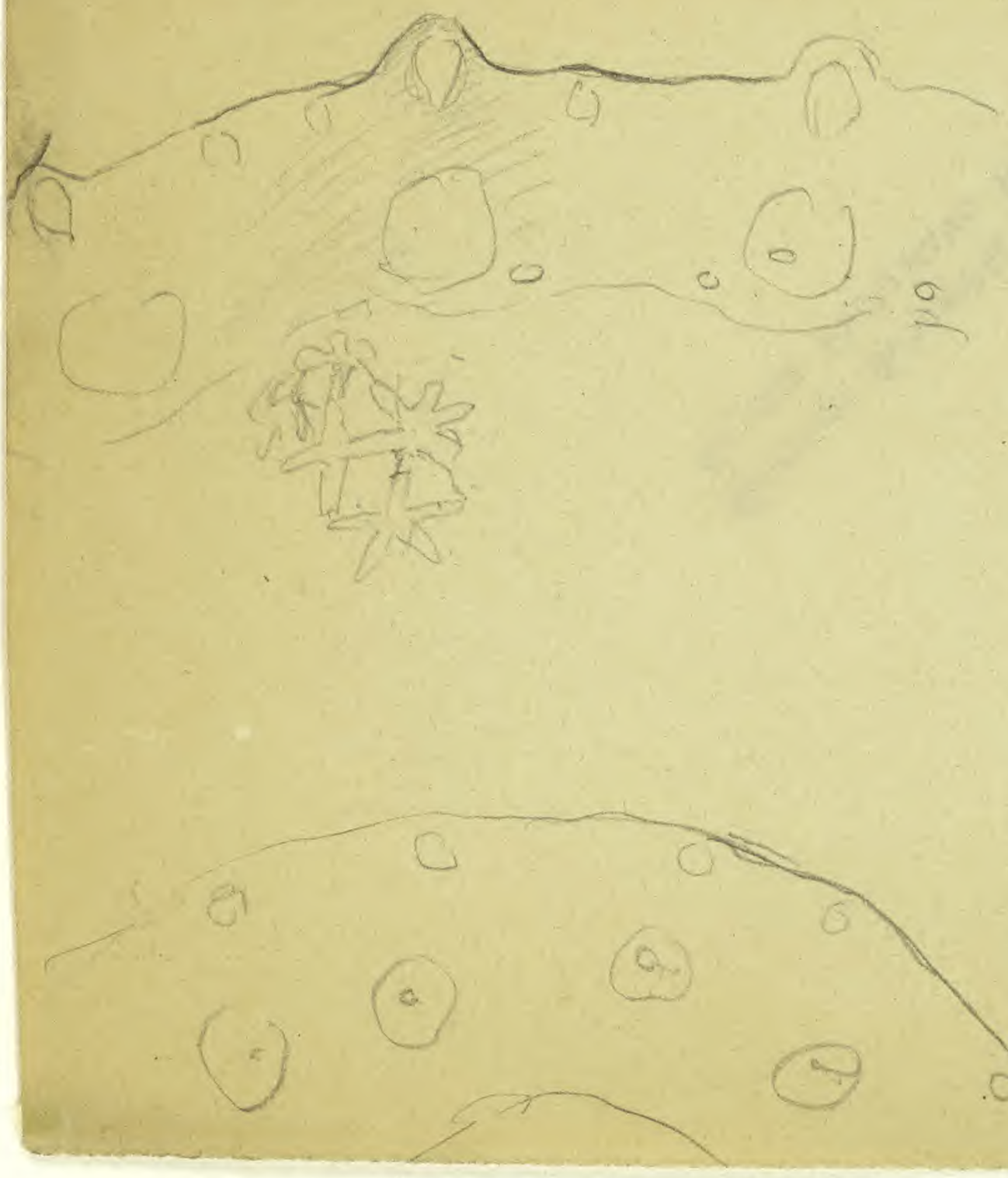
9978

MISSOURI BOTANICAL GARDEN
ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
Copyright reserved
MISSOURI BOTANICAL GARDEN

Jun 16 1868

Leaves roughened



0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

LL68

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

D. effusus robustus

Big trees Mariposa Co.

GEORGE ENGELMANN LIBRARY
MISSOURI BOTANICAL GARDEN
VTEX TEXICH

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

cm 0 1 2 3 4 5 6 7 8 9 10 copyright reserved MISSOURI BOTANICAL GARDEN

8978

ALEX. LEITCH,

APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS